

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
31 December 2003 (31.12.2003)

PCT

(10) International Publication Number:  
**WO 2004/000344 A1**

(51) International Patent Classification<sup>7</sup>: A61K 38/08, 47/48

(21) International Application Number: PCT/EP2003/005224

(22) International Filing Date: 19 May 2003 (19.05.2003)

(25) Filing Language: German

(26) Publication Language: German

(30) Priority Data: 102 28 049.5 24 June 2002 (24.06.2002) DE

(71) Applicant (for all designated States except US): MERCK PATENT GMBH [DE/DE]; Frankfurter Strasse 250, 64293 Darmstadt (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): LINDENBLATT, Hiltrud [DE/DE]; Im Kammereck 49A, 63329 Egelsbach (DE). ZOBEL, Hans-Peter [DE/DE]; Bahnweg 5A, 65439 Floersheim (DE).

(74) Common Representative: MERCK PATENT GMBH; Frankfurter Strasse 250, 64293 Darmstadt (DE).

(81) Designated states (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated states (regional): ARIPO Patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European Patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

---

(54) Title: LIQUID PREPARATION COMPRISING OLIGOPEPTIDES AND ETHERIFIED CYCLODEXTRIN

(57) Abstract: The present invention relates to an aqueous pharmaceutical preparation of oligopeptides comprising an oligopeptide of the formula I, cyclo-(n-Arg-nGly-nAsp-nD-nE), and a partially etherified  $\beta$ -cyclodextrin having a water solubility of greater than 1.8 mg/ml of water, and to the preparation of the aqueous pharmaceutical preparation.